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SHOULD THE UNITED STATES ARMY CONTINUE THE
AVIATION LOGISTICIAN SPECIALTY?

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE

by

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B.A., University of New Orleans, New Orleans, Louisiana, 1976

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

SHOULD THE UNITED STATES ARMY CONTINUE THE AVIATION LOGISTICIAN SPECIALTY by MAJ James D. Prater, USA, 112 pages.

This thesis examines the value of keeping an expert in the field of aviation maintenance, the aviation logistician, in the Army's list of officer specialties. The evidence indicates that there is a need for expertise in the aviation maintenance field to adequately perform in aviation logistician coded positions. The thesis analyzes whether it is in the Army's best interest to maintain the aviation logistician specialty.

The value of this study lies in its advice to the Army aviation community: should the Army maintain the aviation logistician specialty? The author believes the answer to that question is a conclusive yes. It is the authors strongest recommendation that an aviation maintenance officer specialty in some form be kept in place to provide the Army with the needed level of expertise in these highly technical and demanding positions. The author has great doubt that the system chosen for implementation by the Army will solve the problems with the aviation logistician specialty. The system does however have merit, and the author strongly recommends that it should be given the Army aviation community's strongest support. In the event that the new system fails, the author strongly recommends implementation of a system similar to the Navy's Limited Duty Officer system.

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CHAPTER ONE

INTRODUCTION

Development of Thesis Question

The purpose of this thesis is to analyze the validity of maintaining the aviation logistician officer speciality, 15D, or its equivalent, in the U.S. Army's commissioned officer ranks. The necessity of the aviation logistician specialty has been debated in circles throughout the aviation and logistics communities for many years. The U.S. Army has changed the way it trains and prepares officers to assume aviation maintenance officer duties numerous times. In fact, there is currently a restructuring of training requirements and change in career management for the aviation logistician in progress.

In the middle to late 1970s the U.S. Army was critically short of school trained aviation logisticians in its commissioned officer ranks. This shortfall resulted from the reduction in force of post Vietnam aviators and the fact that the aviation maintenance career field and schools

were still in the developmental stage. As a consequence, aviation units filled maintenance officer positions with untrained, unqualified commissioned aviators.

The successful service in some aviation maintenance positions by untrained aviators is partially responsible for the debate which is ongoing today. Although some U.S. Army personnel are in favor of eliminating the aviation logistician specialty, the prevailing view amongst U.S. Army aviators is that maintaining the specialty is both desirable and workable. The rationale for this view is that the aviation logistician specialty provides the U.S. Army with a required level of expertise, enhanced maintenance capabilities, and improves operational ready rates for the aviation community. The aviation logistician specialty is the only viable alternative to meet these goals.

Three groups support the elimination of the aviation logistician specialty: the aviation logistician community itself, the untrained aviators who have not served as aviation maintenance officers and the ground maintenance community. Each element has its own arguments and reasons for wanting to change the current system. A survey of

aviation logisticians indicates that they feel they are trapped in a dead end specialty with no room for advancement past the grade of Lieutenant Colonel. They feel overworked and under rewarded. These officers do not want the specialty eliminated as much as they want changes in the management of their careers. Many non-logistician aviators who have not served in aviation maintenance officer positions seem to believe that any aviator can perform the duties of the aviation logistician through good management techniques and the shrewd use of aviation maintenance technicians and senior non-commissioned officers. A survey of non-logistician aviators who have served as maintenance officers indicates that they do not feel that this is true. Ground maintenance personnel feel that their maintenance background and managerial abilities would enable them to perform acceptably in aviation maintenance roles. In this work I will not address the ability of the ground maintenance or ordinance officer to perform as an aviation logistician. That subject will be left for further study.

The best justification for maintaining the aviation logistician specialty in the U.S. Army system is the

perception that an expert in the field is needed to best manage maintenance operations. Proponents of the present or a similar system feel that aviation unit readiness and the quality of maintenance performed would suffer dramatically if trained aviation maintenance experts were not available. The aviation maintenance system of the military services is very similar to that of civilian industry. Both attempt to maximize cost effectiveness and safety record by employing computers, complex management systems, elaborate quality control and inspection methods, a highly skilled labor force, and extremely sophisticated training techniques to maintain their complicated aircraft and related systems.

One particular area in which policy for all should be the same is in filling key managerial positions with the most qualified personnel available.¹ In the past the military services, especially the U. S. Army and the U.S. Air Force, have not always filled key maintenance management positions with qualified personnel. A very important ingredient in the recipe for a successful maintenance operation or any business is capable management, that is, proven managers with sufficient experience in their line of

work, and with a well balanced background in the various aspects of their particular line of work.²

If one accepts this business based philosophy, it follows that the U. S. Army regularly deviates from sound management principles in filling its key aviation maintenance management positions. These positions have, in the past, frequently been filled with officers who do not have what many managers consider the major requisite for filling the position: sufficient experience in the area in which they will work. The U. S. Army has regularly placed individuals with no aviation maintenance experience at all in positions as aviation maintenance officers.³ This fact was clearly substantiated by a survey of aviators attending the 1992-1993 Command and General Staff Officer College. The survey showed that of those responding, eighteen percent of the aviators with no logistics training served in aviation logistician coded positions. While these aviators performed duties as maintenance officers, they stated in the survey that they felt that additional specialized training would be required to perform in maintenance positions at higher levels of responsibility.

The majority stated that a school trained aviation logistician was needed to perform in aviation maintenance positions.

To provide the reader background information, this thesis will look at the system the United States U. S. Army uses to create and assign aviation maintenance officers called aviation logisticians. In the past, aviation logisticians were forced into the aviation logistics specialty from the ranks of regular aviators without being given a choice in the matter.⁴ Once in the specialty, many were forced to serve in aviation maintenance positions for the next six to ten years until promoted to the field grade ranks.⁵ The 1992-1993 Command and General Staff Officer College survey showed that fifty-three percent of all aviation logisticians served exclusively in maintenance positions after being qualified as an aviation logistician. All aviation officers receive a certain amount of maintenance and systems related training in their qualification courses. The issue is clear: whether these regular aviators or officers from the ground maintenance specialties with a large amount of maintenance training in

other than the aviation field could adequately fill aviation maintenance positions.

In this thesis, I will first describe the aviation logistician career field, to include the duties performed, training required, and the U. S. Army's method of selecting aviation logisticians from its aviation ranks. This information will be followed with an overview of the U.S. Air Force, U.S. Navy, and civilian industrial view toward maintenance management. I will then discuss current and possible future career patterns for aviation logisticians. This information will be followed with an analysis of whether the U. S. Army truly needs an aviation logistician in its ranks. Following this, I will discuss the adequacy of the U. S. Army's current management of the aviation logisticians' career, where it plans to go in the future, and the possibility that this plan may not resolve the U. S. Army's aviation logistician problems. I will then provide a possible alternate solution for use in the event that the current program fails to meet the U. S. Army's needs.

Purpose

Calls for eliminating the aviation logistician specialty or at least changing the present system of managing aviation logisticians come from several directions in our shrinking U. S. Army today. As the force structure is reduced, more and more people question the justification for a separate aviation logistician specialty and whether there is a better way to obtain aviation logistics services without these specialized personnel. Supporters of the current system or a similar system insist that there must be experienced, well trained aviation logisticians to fill aviation maintenance positions.

Those who want a change in the system insist that prior performance in aviation maintenance positions by untrained aviators shows that school training is not a prerequisite for successful performance. Further requests for change come from those forced into the aviation logistician specialty and then forced to remain there with no real chance for career progression above the Lieutenant Colonel level. Yet another source of support for change comes from the ground maintenance community who, in these

times of force reduction, are looking for ways to expand their roles in today's smaller U.S. Army.⁶

The aviation maintenance officer position has evolved today from the commander picking the most experienced and interested officer from among the ranks of aviators to serve as the maintenance representative, to a system of extensive training and preparation to serve in a most technical and demanding positions. The system of managing these specialized aviators' careers has evolved and changed continuously since its beginning and is continuing to change today.

The purpose of this study is to determine whether or not the U. S. Army should keep the aviation logistician specialty. It is designed to answer the question as to whether only trained, qualified aviation logisticians can adequately fulfill the duties and responsibilities of that important position. The question answered in this work is whether the United States U.S. Army needs the aviation logistician within its ranks.

Ancillary Questions

In conjunction with addressing this main issue, I will address the following ancillary questions, to wit:

--Is the aviation logistician specialty, 15D, a viable career field?

--Can regular U.S. Army aviators perform the functions currently performed by the 15D?

Assumptions

Before beginning the analysis, there are several critical assumptions that must be stated:

--The U.S. Army's sister service aviation maintenance programs and the commercial aviation maintenance industry are similar to the U.S. Army in aircraft support areas. This indicates that management's responsibility at any comparable level is basically the same; to get maximum performance from minimum resources.'

--Accepted management principles and traditional practices have the same application in the U.S. Army as they do in the other services and civilian industry. Therefore, stringent rules for management selection are just as important in the military services as they are in

civilian industry. If the aircraft maintenance business of the military services is similar to that of civilian industry, then our U.S. Army managers should have comparable experience levels and qualifications.⁸

--The population of surveyed aviators at Ft. Leavenworth is generally accepted as the top fifty percent of the aviation leadership population for their year group. Their views can be accepted as representative of the aviation communities leadership, since they are the future leaders of the aviation community.

Limitations

The major limitation in this thesis lies in the instability of the U.S. Army 's personnel management system. The way the U.S. Army fills its aviation maintenance positions and its policies have changed dramatically over the past fifteen years, as has the system for training aviation logisticians. A major revision in the handling of aviation logisticians and their career paths as they exist today, has been proposed. Though the aviation logistics officer field is a dynamic specialty, the examination of its evolution and the development of policy over time will give

an interesting perspective of the personnel policies of the U.S. Army. No doubt there will be changes in the handling of aviation logisticians. This thesis will discuss the problems identified in the past and perhaps, will suggest the consequences of the changes in the future for aviation logisticians. There is no known pending action to eliminate the aviation logistician specialty.

Definitions

Every profession has its own language so it is important to clearly define the military nuances of the terms in this thesis.

--"Armed forces," "services," and "military" are interchangeable. They refer to all active and reserve military branches of the uniformed services, to include the U.S. Army, U.S. Navy, U.S. Air Force, U.S. Marines, and U.S. Coast Guard.

--"Aviation logistician" and "15D" are interchangeable and refer to a school trained aviator who has completed the formal schooling required to be awarded the specialty code 15D. Current qualification standards include the Aviation Officer Advanced Course, the Aviation

Officers Logistics Course, and the Aviation Maintenance
Officers Repair Technicians Course Phase II.

--"Aviation maintenance officer" refers to any
officer assigned in a position coded for the specialty 15D,
whether that officer is a school trained 15D or not.

--"Officer" refers to commissioned officers only
unless warrant officer is specified.

--"Regular aviator" refers to any aviation officer
or pilot not school trained as an aviation logistician.

--"Specialty" refers to the classification system
used to identify service members as having certain branch
qualifications, skills, or areas of concentration; and to
identify or code the positions requiring those skills,
qualifications, or specialties.

CHAPTER TWO

LITERATURE REVIEW

The literature on aviation maintenance is voluminous. Unfortunately, despite the tremendous emphasis placed on aviation maintenance within the U.S. Army, there is little written on aviation maintenance managers. There are numerous U.S. Army publications which address aviation logisticians, but there are no works available which fully cover this particular area.

There are numerous U.S. Air Force studies on all aspects of U.S. Air Force aviation maintenance officers from which parallels and appropriate material can be drawn. Although the systems are not identical, there is enough similarity in purpose and function to allow for extensive use of these works. Major Charles R. Walkers' Air University study, Chiefs of Maintenance: A Study of Productivity Versus Experience concludes that no officer should be assigned to maintenance managerial positions without proper credentials. This includes, at a

minimum, experience in maintenance assignments. This conclusion supports the argument for keeping formally trained, experienced aviation logisticians.

Several magazine articles were of particular interest in comparing the services' maintenance managerial techniques to that of civilian industry. The article in International Management "Can a Top Manager Slot Into Any Industry," provided particular insight and support to the idea that a manager must have experience in the area he' is managing to be truly successful.

A very useful text supporting the utilization of experienced personnel in management positions is William H. Newman's, Administrative Action. The Techniques of Organization and Management. This book provides insights into how civilian firms manage their supervisory positions to achieve success. Additional insight in this area was provided in Paul Prigor's, Charles A. Meyers', and F. T. Malin's, Management of Human Resources.

A study of aviation maintenance was conducted by Aviation Systems Command in 1987 and 1988. This study, known as the aviation logistics study, was conducted by a

Council of Colonels made up of prominent aviation and aviation logistics personnel. Major commands throughout the U.S. Army were represented. The study was completed under the direction of a General Officer Steering Committee. General Officers representing U.S. Army aviation, aviation logistics and personnel arenas provided guidance. One of the major issues studied was the professional development of the aviation logistician. This study provides valuable information about the adequacy of the present system of handling aviation logistician's careers and the direction aviation logistician's careers will be moving in the future.²

There are major gaps in the literature concerning U.S. Army aviation logisticians, their utilization and career progression. Everyone interviewed recognizes that there are problems and, that the system is currently preparing to undergo the latest in a series of changes. Major Gavoura, the Chief of Proponency of the Aviation Logistics School, reported that the current changes are occurring under the aegis of the aviation logistics study conducted by Aviation Systems Command. Major Gavoura stated

that the logistics study was the source document for all currently planned changes. This key study provided significant input to this work. The lack of additional documentation in this area is noteworthy.

The works discussed above reflect the most important and current research in the field of aviation maintenance personnel management. This list is not comprehensive and does not reflect all of the documents I have consulted during my research. The works that were found useful in developing ideas about aviation logistician management are cited in the attached bibliography. This thesis will attempt to bridge the gap in the literature available and show that although revisions are needed in the way the U.S. Army manages aviation logisticians, there is as definite need for the retention of this specialty in the U.S. Army.

CHAPTER THREE

METHODOLOGY

The question of maintaining or doing away with any specialty from the military structure is an emotional one. Those who are happy with the status quo fight to maintain it while those who are dissatisfied tend to support change. The key to providing a useful product in this thesis is to present a logical exposition supported by the facts and opinions of the future leadership in the aviation field.

Methods

Since very little is available in the way of published information on the subject of Army aviation logisticians, the majority of information contained in this thesis was drawn from unpublished works, interviews, and a survey (Appendix B) conducted on the aviators attending the 1992-1993 class of the Command and General Staff College at Fort Leavenworth.¹ Information on the duties and responsibilities of the aviation logistician was taken from

personal experience and Army Field Manuals and Regulations. Information on how the Army selects, trains, and manages the careers of its aviation logisticians was educed from personal experience, interviews, the Aviation Systems Command aviation logistics study, Army Regulations, and the survey conducted at the Command and General Staff College. Information on civilian industries views of management was collected from articles and books. Information on the U.S. Air Force and U.S. Navy's views was gathered from service publications and interviews with officers from those services attending the Command and General staff College at Fort Leavenworth. Information on the Army's plans for changes to the handling of aviation logistician career management was extracted from the unpublished Aviation Systems Command aviation logistics study and interviews with the personnel at the Aviation Logistics School at Fort Eustis. Statistical data was compiled from the opinions of aviators in the Army Command and General Staff College class of 1992-1993.

The information garnered from available published literature, interviews, and unpublished literature will be

combined with data assimilated from answers to a survey designed to inquire about the present and future status of the aviation logistics specialty in the U.S. Army.

Flow of Research

The research for this project was broken down into four phases as follows:

Phase One. A review of the current literature.

This included previously written thesis, field manuals and regulations, magazine articles and books on the subject. In actually, as was previously stated, very little was found on this subject.

Phase Two. Interviewing available personnel at Fort Leavenworth and telephonic interviews with personnel at the Aviation Logistics School at Fort Eustis, the Aviation Center at Fort Rucker, and Aviation Systems Command at St. Louis.

Phase Three. Following up on secondary sources found in my initial review of available material and interviews with personnel recommended by my initial contacts in Phase Two.

Phase Four. Conducting a survey of aviation personnel attending the 1992-1993 class at the Command and General Staff College at Fort Leavenworth, Kansas and interviews with U.S. Air Force and naval aviators attending the course to determine how their services manage aviation maintenance officers.

Survey Development

The survey (Appendix B) utilized was developed to provide statistical data regarding the opinions of aviation personnel toward the aviation logistician career field. It was developed with the assistance and under the guidelines offered by the personnel from the Statistics Analysis branch of the U.S. Army Command and General Staff College.

The survey was designed to indicate whether the aviator was an aviation logistician or not, and whether service as an aviation maintenance officer had been rendered during the aviator's career. The survey also gathered information regarding the opinions of aviators in the field, on the aviation logistician specialty. Opinions were collected on whether the specialty was required, if the aviators would serve willingly as logisticians and if they

felt logisticians were treated fairly during their careers. These opinions reflect future leader perceptions and thus add validity to this work.

Strengths and Weaknesses

Due to the limited amount of written work available on this subject, great reliance is placed on interviews and the Command and General Staff College survey. The aviators surveyed at the command and General Staff College represent only successful aviators and aviation logisticians. This could be perceived as a weakness in the validity of the survey due to the limited population. It is the authors belief that it strengthens the validity of the results for the following two reasons: First, the population of aviators at the Staff College are a true cross section of aviators, with experience in commands throughout the U.S. Army. Second, those who have not been successful enough to be considered in the top fifty percent of the profession and thus those who have the most reason to be dissatisfied with the system, were not surveyed. Only U.S. Army aviation personnel selected to attend the Command and General Staff College, the future leaders of U.S. Army aviation,

participated in this survey. Thus the strength of the survey is that if it is biased at all, it should be biased toward favorable comments on the present system and be less critical of the system in which the participants have achieved success.

CHAPTER FOUR

ANALYSIS

Aviation Logistics Career Field (15D)

General Description

The aviation logistics career field (15D) is one of the most challenging career fields in the U.S. Army today. Its very nature directly involves it in the day-to-day accomplishment of the U.S. Army aviation mission. It is one of only the few U.S. Army specialties where even the most junior officers are given a high degree of responsibility and the authority to support it. The success of an U.S. Army aviation unit, to a large degree, depends on the success of its maintenance program. Without adequate maintenance support, the aviation unit would not have adequate aircraft flyable to meet its mission requirements. No other support specialty accounts for every hour of available equipment time and draws the attention of every level in the chain of command as does aircraft maintenance. Even the armor and mechanized infantry units who are totally

dependent on their maintenance efforts only account for equipment availability by the day rather than the hour.

Army Regulation 611-101, The Commissioned Officer Classification System, describes the aviation logistician as one that: "commands or serves in leadership positions in aviation maintenance/logistics units. Plans, coordinates, and directs employment of aviation maintenance/logistics units. Serves in staff positions at varying levels, requiring aviation maintenance/logistics knowledge and experience."¹ In essence the aviation logistician is a manager of people, money, and materiel. Examples of related civilian occupations are: airplane or helicopter pilot, test pilot, purchasing agent, parts manager, and aircraft maintenance supervisor.²

The typical aviation maintenance officer reports to a unit and is rapidly thrust into a strange, confusing ,and high pressure environment. The aviation maintenance officer is virtually always responsible for many people and large quantities of high dollar value tools and equipment. Regardless of the position to which he is assigned in the maintenance organization, the primary mission is to provide

safe flyable aircraft at the time and place required by supported unit. To reach this objective, people, money, and materiel must be managed in a skillful and efficient manner. In today's environment of shrinking resources, this task is becoming increasingly difficult considering that there is no corresponding decrease in the size or complexity of the maintenance mission.

Army aviation maintenance utilizes a three level system. The level of maintenance is based on the complexity of the work being performed. The lowest level is called aviation unit level maintenance. These are tasks which would normally be performed by the owning organization or its organic maintenance assets. The middle or intermediate level in the three tiered system is appropriately called aviation intermediate maintenance. The work performed at this level consists of more complex, time consuming tasks. These tasks are normally performed by an aviation intermediate maintenance company. The final and most complex level of aviation maintenance is called depot level maintenance. The maintenance performed at depot level is done primarily by civilian employees. Since the number of

officers serving in depot level positions is so small this area will not be addressed in this work.

Aviation Unit Level Maintenance Duties

At the aviation unit maintenance (AVUM) level, the aviation maintenance officer is expected to function in and provide supervision over many diverse areas. It should be noted that it is not absolutely necessary to be an expert technician to perform successfully as an aviation maintenance officer at this level. Warrant officers serving as aviation maintenance technicians coupled with assigned senior noncommissioned officers are normally present to assist and teach newly assigned maintenance officers. Concentration on proven management procedures and techniques will rapidly lead the logistician to the technically important aspects of his position. For example, the investigation of recurring compressor stall problems in an aircraft fleet will lead the maintenance officer to investigate of the most common causes of compressor stalls and a study of the internal workings of the turbine engine. The maintenance officer cannot possibly know everything about a machine as complicated as today's aircraft.

Improved knowledge will come with experience, time and much work. The major point to remember is that the more technically proficient the maintenance officer, the more competent the decisions made concerning the maintenance of the aircraft being maintained. Thus, with a more proficient and knowledgeable maintenance officer as supervisor, more competent decisions will be made, and the efficiency of the maintenance unit should increase.³

At the unit level, aviation maintenance officers are held responsible for management of the repair parts supply operation. This includes supervision and ordering the proper parts in the proper quantities, managing the repair parts budget, supervising the storage of repair parts, tracking certain parts through the system, ensuring returnable/repairable parts are clean and returned to the supporting unit, as well as many other responsibilities. Every aspect of the ordering shipping and storing of repair parts must be intensively managed to ensure that repair parts are available to maintain the unit's aircraft.

The next area of responsibility of the aviation maintenance officer is accountability of tools and

equipment. A typical assignment will see the officer hand receipted for as many as fifty tool boxes (the number of tool boxes will be more or less depending on the number of mechanics assigned to the unit), in addition to support equipment, tool room sets, and facilities. Aviation maintenance officers are regularly held accountable for hand receipts valued in excess of fifty million dollars. This is a major responsibility for a junior officer.

Another major area of responsibility is the supervision of the quality control section. Quality control is more stringent in aviation maintenance than in any other maintenance field. The lives of all personnel riding in the aircraft depend on the quality of the maintenance performed. The aviation maintenance officer is the head of the quality control section in the aviation maintenance unit. This is the most urgent reason for maintaining the most experienced best trained aviation maintenance officers possible. The aviation maintenance officer regularly makes decisions as to whether an aircraft is safe to fly or not. This decision is not made in a vacuum. Technicians and noncommissioned officers are often present to lend advice and to assist.

The final decision is made by the maintenance officer and the safety of those riding in that aircraft rests with his ability to make the proper decision. Monitoring quality control operations properly requires a thorough knowledge of aviation forms and records and aviation maintenance management.

Maintenance of the production control office is critical in any aviation maintenance operation. Army Regulation 700-138 requires that the status of every aircraft be accounted for for every hour of every day. It is the responsibility of the aviation production control officer to manage the flow of work in the various shops and set priority of work for all maintenance personnel. Scheduled and unscheduled maintenance are the two broad categories into which all aviation maintenance jobs fall. Scheduled maintenance consists of those inspections and parts replaced based on time. The U.S. Army utilizes a phase maintenance system which inspects different areas of the aircraft at specific time intervals. These inspections are done in a sequence such that after a given period of time the entire aircraft has been inspected and then the

phase cycle begins over. These critical parts called time before overhaul components have a given life expectancy measured in flight hours installed on the aircraft. These items are tracked and replacement is scheduled at, or just prior to the part reaching this time. Inspections and time before overhaul components must be completed on time so as to not endanger the lives of the crews and passengers of the aircraft. Unscheduled maintenance is exactly what its name implies. It cannot really be anticipated, except in the sense that time and personnel must be planned into the workload to accommodate it. The production control officer possibly the most critical link in the aviation maintenance chain. It is critical that this individual be a good manager.

The last major duty given to the aviation maintenance officer at the unit level of maintenance is that of test pilot. The test pilot position requires special training due to the dangerous maneuvers performed while in flight testing various components on the aircraft. The test pilot regularly recovers aircraft with maintenance problems from field locations where he must make a decision whether

to fly the aircraft home or not. The most economical recovery is to fly the aircraft home to make repairs. Any other recovery method costs the unit time and/or additional money to return the aircraft to a flyable condition. Most aviation units are authorized one maintenance technician, who is a qualified test pilot, for each type of aircraft owned. However in many instances due to manpower shortages and numerous other reasons these positions are often vacant. At times, there is only one test pilot for a particular type of aircraft in a given unit and the aviation maintenance officer is often that person. It is also the test pilots responsibility to flight check aircraft worked on by the unit's mechanics to ensure the aircraft is safe to fly for mission work. It is absolutely critical that the pilots flying mission in the unit's aircraft have faith in the abilities of the maintenance test pilot.

In addition to the aviation peculiar tasks performed by the aviation logistician, he is responsible for all other leadership duties like any other officer with numerous subordinates for whom they are responsible. Service at the aviation unit maintenance level provides the aviation

maintenance officer with the required experience and background to perform duties at the Aviation Intermediate Maintenance level.

Aviation Intermediate Level Maintenance Duties

At the intermediate level of aviation maintenance, the aviation maintenance officer can be required to serve as a unit commander, in any of several platoon leader positions, as a production control officer, or in any of a number of other associated staff positions. Positions held at this level require significantly more knowledge and experience than positions at the aviation unit maintenance level.

As the platoon leader for the helicopter subsystem repair platoon, the aviation maintenance officer must be a rated aviator, also qualified as a maintenance test pilot. The position demands extensive aviation and aircraft maintenance training and experience because of the platoon's diverse mission requirements.⁴ The platoon is comprised of repair sections that are responsible for component, airframe, turbine engine, and pneudraulic repairs. Nondestructive inspection procedures are also performed.

These include propulsion, power train, airframe structural, and rotor repairs. Included is a machine shop and welding capability.

As the platoon leader of the supply platoon, the aviation maintenance officer's primary function is to manage the aviation technical supply support provided to supported aviation units in the direct support supply mission. He is responsible for implementation of all technical supply procedures.⁵

As platoon leader of the avionics repair platoon, the aviation maintenance officer must be a rated aviator. He controls the activities of repairers and supervisors in nine different military occupational specialties. He develops procedures and determines policy in the internal workings of the avionics communication equipment repair section, the navigational, flight control, special equipment (radar and air surveillance equipment) repair section, the automatic test equipment operations section, and the battery service and repair section.⁶

As the platoon leader of the helicopter system repair platoon, the aviation maintenance officer must be

rated in each different type of aircraft operated by the division supported and qualified as a maintenance test pilot. The diverse mission requirements placed on this platoon demands extensive aviation and aircraft maintenance training as well as experience from its platoon leader. The platoon leader may make decisions and commit platoon resources (on occasion and according to unit policy) when not able to consult the company commander. He is the company commander's primary source of feedback on the status and quality of supported unit maintenance programs, requirements and problem areas. He assigns and distributes work among the subelements of the platoon. Under his direction, the platoon performs intermediate level maintenance on helicopters and airplanes at a semi-fixed support base, and when required, at dispersed locations throughout the unit's area of responsibility. The platoon also provides aircraft recovery and evacuation teams when required, and backup unit level maintenance support.'

The production control officer is the principal working manager of the aircraft maintenance company. He is the sole point of contact between the Aviation Intermediate

Maintenance Company and the supported unit in matters of aviation maintenance. He and his assistants provide centralized control over all aspects of the aircraft maintenance effort. The volume of work output, the efficient use of personnel and facilities, and the orderly progression of work depend largely on his skill and managerial ability. His primary tool is "Progress Planning." This includes: coordinating input to the company, the flow of jobs between the unit work centers, planning for acquisition and availability of materiel, parts, components, tools, support equipment, and everything else required to ensure the job is completed without interruption, and developing data on status and progress of work orders. He determines which jobs should be evacuated to a backup Aviation Intermediate Maintenance Unit when the capacity or capability of the unit is exceeded. The production control officer coordinates temporary tailoring of task elements to balance uneven work distribution or overload. He works closely with the Materiel Management Center and keeps them informed of current work order status and unit work load.⁹

In addition to all of the specific duties outlined above, the aviation maintenance officer at the Intermediate Maintenance level is responsible for tremendous quantities of tools, diagnostic equipment and other property. This is most amply demonstrated at the Non-Divisional Aviation Intermediate Maintenance Company level where, the unit commander spends on an average, three working days per month doing his monthly ten percent inventory.' In all positions described in the preceding paragraphs, the maintenance officer must be thoroughly familiar with aircraft and aviation maintenance to effectively perform his duties.

Aviation Logistician Training

As has been demonstrated in the previous paragraphs, the aviation maintenance officer must be able to perform a wide variety of jobs and responsibilities. He must be competent in not only maintenance and the aviation field, but also in the technical characteristics of the individual aircraft being supported. To perform effectively in positions throughout the aviation logistics framework effectively requires training. This was supported by the survey of aviators attending the Command and General Staff

College as follows: Of the sixty-one aviators surveyed, seventy-seven percent said they would need additional training to perform duties at the aviation unit maintenance level, and five percent said they did not believe that they could perform these duties even with additional training. When discussing performance of duties at the aviation maintenance intermediate maintenance level, forty-five percent of all aviators surveyed stated that they would need extensive formal schooling to perform duties at the intermediate maintenance level and the number saying they could not perform at this level at all rose to ten percent. Eighteen percent of the aviators surveyed had performed duties as an aviation maintenance officer at the unit maintenance level without formal training. One hundred percent of these officers stated that they would require formal schooling to perform effectively at the aviation intermediate maintenance level. These figures clearly show that the more familiar an officer becomes with the aviation maintenance field, the more likely he is to realize the importance, indeed the criticality, of training to the performance of duties in the upper levels of aviation

maintenance. It is also evident that while an officer may be able to perform duties at the unit level without any maintenance training, the duties at the upper levels of aviation maintenance are much more technically demanding and require additional training for effective duty performance.

Currently, aviation logisticians are selected for training in the maintenance career field directly from flight school. Some personnel volunteer and some are involuntarily drawn into the specialty. A survey of aviation logisticians attending the 1992-1993 class at the U.S. Army Command and General Staff College indicates that only forty-seven percent of those selected to become aviation logisticians did so voluntarily. Aviation logisticians make up twenty-one percent of the aviators responding to the survey. Fifty-three percent of the aviation logisticians successful enough to be selected to attend Command and General Staff College were forced into the career field by aviation branch. Those personnel with a propensity and desire are selected by their branch first, and then the remaining needs of the U.S. Army are met by involuntarily selecting personnel.

Career training and progression for a typical aviation logistician as currently seen by the aviation logistics school would go as follows: The individual will first attend the Aviation Officer Basic Course and Initial Entry Rotary Wing Training (Flight School). This will be followed by attendance at the Aviation Maintenance Officers Course and the Maintenance Test Pilots Course for a specific type of aircraft. The officer will then be a fully trained aviation logistician, and will be assigned in an aviation logistics slot in a unit somewhere for the next three to four years. The officer then goes to either the Aviation Officer Advanced Course, or more preferably in the future, the Combined Logistics Officer Advanced Course. This schooling would be followed by another tour in a unit as an aviation logistician for three to four years. During this assignment the officer will be sent to the Combined Arms Services Staff School (CAS³). Following this assignment will be another aviation logistics assignment until attendance at Command and General Staff College.

In the Aviation Officers Basic Course the aviator receives two weeks of classes on aviation maintenance and

supply. During the Initial Entry Rotary Wing Qualification Course the aviator receives sixty hours of instruction on aircraft systems and components. This gives the aviator the basic background needed to attend the Aviation Maintenance Officer Course. This course provides in depth training on aviation maintenance forms and records, production control techniques, maintenance management, and organization. An additional eighty hours are spent training on aircraft systems to include turbine engines, power train systems, hydraulic systems, and electrical systems. These systems are covered in a generic manner which would allow the logistician to apply basic concepts to any airframe. The aviation logistician then attends the Maintenance Test Pilot Course for a specific airframe. If the officer is going to an attack helicopter battalion with the AH-64, he would attend the test pilot course for the AH-64. The test pilot courses vary in length with the complexity of the aircraft, but range from thirteen to fifteen weeks in length. At the test pilot course the officer is taught aircraft systems in depth for the assigned aircraft, and troubleshooting techniques are taught in depth for all aircraft systems.

The student is also taught test flight procedures and emergency procedures to cope with problems most likely to be encountered during the test flight. Only after this extensive training, is the aviator considered adequately trained to assume the duties of an aviation maintenance officer.

The aviation maintenance officer is often placed in the position of making a decision which holds the safety and the lives of the aircraft crew and their passengers in his hands. The aviation logistician is often the only "expert" available to decide if an aircraft should be flown or not. If he is not knowledgeable in every aspect of the business, an intelligent, informed decision may not be made and the very lives of all personnel on board the aircraft are held in the balance. The timeliness and quality of aircraft maintenance is a direct reflection of the aviation maintenance officer's knowledge and experience.

The Other Services Aviation Maintenance Officers

U.S. Air Force Aviation Maintenance

The U.S. Air Force maintenance organization is very large, diverse, and complex. At the base level, the deputy

commander for maintenance plans, schedules, directs, and controls maintenance resources to meet mission requirements. Simply put, the job is to adequately support the wartime and peacetime mission of the wing. U.S. Air Force maintenance is broken down into production analysis, administration, plans, programs and mobility, quality control, and maintenance control. The U.S. Air Force sends its officers to extensive maintenance schools to attain the knowledge required to perform duties in this area.

A representative wing in today's U.S. Air Force consisting of up to sixty aircraft is supported by over fifteen hundred maintenance personnel, with the range of support going from minor service and inspection to major component removal, repair and installation.¹⁰ The capability of U.S. Air Force maintenance activities is virtually unlimited.

Maintenance officers must ensure the efficient use of resources, give operations the maximum number of usable airframe hours consistent with sound management principles, and accurately forecast the supplies, including repair parts, needed to meet operational commitments.¹¹ The

maintenance officer manages all maintenance programs. This includes a strong quality control program directed toward ensuring adherence to all technical data and directives. This acknowledges that quality is closely related to safety and doing the task right means doing it safely. The maintenance officer must be capable of focusing the efforts of his entire section toward meeting the challenge of safely accomplishing the mission.

This brief discussion about the U.S. Air Force maintenance officers duties and responsibilities is intended to demonstrate the similarities between the U.S. Air Force and U.S. Army aviation maintenance officer's duties and to afford the reader an appreciation of the magnitude of the responsibilities inherent in the role of the aviation maintenance officer. In order to prepare an individual for such a role in todays military society, the U.S. Air Force has developed guidelines which establish qualifications required to prepare an individual for performance of duties and responsibilities of these positions.

To become a fully qualified maintenance officer in the U.S. Air Force, one must complete an aircraft

maintenance officers course and serve a minimum of eighteen months in a maintenance officer assignment.¹² It is mandatory that the experience include supervision of activities which encompass aircraft and engine assembly. This also includes overhaul, repair, and modification of equipment under shop and field conditions.¹³ Normally this degree of expertise is associated with company grade officers.¹⁴ The next step in career progression occurs as the officer is promoted to major. He is then eligible to qualify as a staff maintenance officer.¹⁵ He must be a fully qualified maintenance officer and have twenty four months experience in planning, coordinating, and directing the maintenance, modification, and repair of aircraft systems. He must be knowledgeable in maintenance management, production control, and data collection procedures. He must be thoroughly familiar with supply, transportation and fuel services as they relate to aircraft support.¹⁶ The final step in the U.S. Air Force maintenance career ladder is the aircraft maintenance director.

Highlighting these basic requirements is an attempt to show that U.S. Air Force planners recognize a need for a

learning pyramid that prepares an individual for positions of greater responsibility in the maintenance field. Keeping these responsibilities in mind, one might presume that the chiefs of maintenance in the U.S. Air Force system were all totally knowledgeable and fully prepared to assume these demanding duties and responsibilities. This is not always the case.¹⁷

In the Military Airlift Command (now known as Air Mobility Command) alone, three of the six major airlift wings employed chiefs of maintenance with no actual maintenance experience. Two of the three individuals previously served as maintenance squadron commanders for a brief time. However, this experience in itself does not make a qualified maintenance officer. Such qualifications are developed only through adequate formal training programs and direct experience from working in the maintenance field.¹⁸ Personnel can successfully manage aircraft maintenance operations in the U.S. Air Force without moving up through the formal career ladder. However, they must be adequately prepared before attempting management in the top positions.¹⁹

In his masters thesis, "Chiefs of Maintenance: A Study of Productivity Versus Experience," Major Charles M. Walker indicates that there is a shortage of qualified aviation maintenance officers at the upper levels of maintenance management. He states that there are ample opportunities to train rated aviators during their careers to fill these shortages. For these individuals to be fully qualified, they would have to complete a two to three year tour in the maintenance field, attend a formal orientation course, and become thoroughly familiar with the concepts of the maintenance process.²⁰

In summary, the management positions in the aviation maintenance field of the U.S. Air Force are very responsible positions in a very demanding occupation. The quantities of aircraft and support personnel, coupled with the facilities, make these positions comparable to aviation maintenance management positions found in the U.S. Army. Performance data gathered on U.S. Air Force personnel in maintenance positions, relative to their experience in the field can be correlated to the U.S. Army experience. In later sections of this work, it will be shown that in both the U.S. Air

Force and civilian industry, correlations can be drawn, and performance of managers relative to their experience level in the field of work in which they are performing can be predicted.

The Naval Aviation Logistician

The U.S. Navy's aviation maintenance system is much like that of the U.S. Army's and U.S. Air Force's where position titles and activities are concerned. Each has its production control/maintenance control offices where work flow is managed, a quality control section where safety and high quality maintenance are ensured, its maintenance sections and shops, and all of the other aspects of an aviation maintenance facility. Naval aviation maintenance even has the same goals as the U.S. Army and the U.S. Air Force: to provide the supported unit with the maximum number of safe mission worthy aircraft possible. The major difference in the U.S. Navy aviation maintenance system is in the way it approaches the careers and management of its officers.

The top maintenance position in a U.S. Navy aviation wing is the Wing Maintenance Officer. This officer is not a

maintenance officer at all in the sense the U.S. Army and U.S. Air Force consider maintenance officers. This officer has no maintenance training, and is simply a staff officer responsible for managing the units maintenance program, in much the same way that a S-4 on an U.S. Army unit staff would manage any logistical function within his area of responsibility. The individual is selected from the pilots in the wing to fill this position just as a battalion/brigade commander would select a staff officer to fill one of his staff positions. Unlike the U.S. Army's S-4 positions, however, this position is one of the highly sought after positions for an officer within naval aviation units, much like battalion/brigade S-3 or executive officer jobs in the U.S. Army.

The true aviation logistician positions, as the U.S. Army knows them, are filled by what the U.S. Navy calls "limited duty officers." These are the U.S. Navy's aviation maintenance and supply experts. limited duty officers, with their supporting personnel, are the ones who actually perform the maintenance mission and keep the aircraft flying. These officers actually fill the Maintenance

Officer, Production Control Officer, Quality Control Officer, and Aviation Maintenance Supervisory roles.²¹

Limited duty officers are strictly volunteers. The U.S. Navy normally draws these officers from its enlisted and warrant officer ranks. However, a regular commissioned naval officer could choose to pursue this career path if he chose to do so. This rarely happens, as is indicated by the Naval aviation officers interviewed at the U.S. Army Command and General Staff College who stated that they had never personally seen a limited duty officer who had come from the regular commissioned officer ranks. These positions offer limited upward mobility for the personnel choosing to follow this path. Because of the requirement that the individuals obtain the minimum grade of E-7 prior to application for this program, they normally have at least ten years of service before acceptance. The years required to make rank and the limited positions which the U.S. Navy has for maintenance officers in the grades of captain combine to ensure that most officers in this field do not get promoted above the rank of commander.²²

Utilization of limited duty officers accomplishes two things for the U.S. Navy: First, it provides the enlisted personnel and warrant officers a way to progress through the ranks if they desire to and are capable of doing so. Second, it provides the U.S. Navy with a ready pool of the brightest, most knowledgeable aviation maintenance personnel from which to draw its aviation maintenance personnel. The result is an abundance of highly technically competent individuals willing to perform in the aviation maintenance arena.²³

Civilian Industry

The Prevailing View

The experience level and capabilities of a business' management directly effects its success or failure. During a congressional hearing on small business failures, Dunn and Bradstreet, a national credit rating organization, stated that approximately ninety-one percent of all small business failures were related to mismanagement.²⁴ They state that even with the best products, production facilities, and outlet merchandising, a business cannot succeed if it has poor management.²⁵ Management failures can be divided into

four broad categories: lack of experience in a particular business, lack of management experience, unbalanced experience in management, and incompetence.²⁶ Aviation maintenance in the armed forces is in principle like a business. One should be able to predict the success of the aviation maintenance unit through observation of the experience level and capabilities of the maintenance manager. The objective of this section is to correlate the success of the business manager with management experience and relate that to the aviation maintenance performance in the services. To accomplish this objective, some widely accepted views of top business managers are examined. After that, the four categories of management related business failures mentioned above will be discussed. Two general topics fall under this area, the capability of managers to transfer to a new areas of expertise, and the need for management experience. In the following sections of this chapter, these ideas will be compared to the services experience and some conclusions drawn.

"Top managers are unlikely to be successful unless they have a profound understanding of their industry."²⁷ The

prevailing industrial view is that managers who lack insight into their product area are likely to make disastrous mistakes.²⁸ The majority of large companies will not employ managers with no expertise in the products of that industry. This is exemplified by one industrialist who observed that several firms were liquidated as a result of management by directors who knew nothing about their business.²⁹ A manager working for Enviortech Corporation, a major United States manufacturer of pollution control systems, does not believe that managers can be effective switching industries. He does not believe that a manager relying on his subordinates experience can make effective decisions about his industry's product. "That's defining a manager as a very narrow gauge individual. He's not intrinsically with the business. He's merely a people manipulator-an over-all Big Brother, you might say."³⁰

The lack of historical knowledge as to what has gone on before in the industry is a major shortcoming of inexperienced managers. This individual would not know, for example, that a certain method or operating procedure had been tried in the past and failed. For the manager to be

successful, someone with past experience must explain past events to the boss. The traditional view of executives in industry is that someone would constantly have to be advising them, and many are of the opinion that such dependence on subordinates is a real danger to good management.³¹ There have been cases where managers have moved successfully from one industry to another but their success is almost entirely due to the manager's personal suitability to the unique situation to which he transferred.³² This may lead to the conclusion that there is no such thing as interchangeable managers. There is opposition to this concept. The people who would disagree, however, are in the minority, although there is support in some areas.

There seems to be some validity to arguments against restricting managers from transferring into new and unfamiliar areas of industry. Several men have overcome all obstacles and successfully changed to an unfamiliar area in the industrial environment.³³ Their success seems to support the interchangeability of managers. The managing director of the British subsidiary of the Volkswagon Corporation is

an example of such interchangeability. When he switched to the automobile industry from the British paint industry, all he knew about cars was how to drive one. Another example is the insurance executive who transferred to the A. B. Volvo Corporation as its president.³⁴ Numerous other examples exist which support this line of thinking. These examples certainly provide substance to the view that management in itself is a discipline which can be taught in the same way that sales, marketing, or production skills are taught.³⁵

A senior executive for a major U.S. Corporation states that management qualities are transferable from one industry to another. He believes that if a manager has utilized these traits successfully in one managerial assignment he can apply them in a totally different industry with similar success. The individual acknowledges however, that there are problems with this line of thought. He states that a manager with non-technical experience would probably be lost trying to evaluate subsystem modifications of a technical product.³⁶ The validity of the successful experience of the examples shown above cannot be denied. However, the prevalent view in the industrial society is

that there is a strong possibility that managers attempting to switch to an unfamiliar industry will fail dramatically.³⁷

When discussing the four categories of management related failures in business, the largest single contributor to failure is managerial incompetence. This category accounts for forty-four percent of all business failings.³⁸ Incompetence is followed by the area titled unbalanced management experience which accounts for approximately twenty percent of business failings. This is described as the failure of the manager to understand the key areas falling under his management. For example, an individual with management experience in supply may not have the necessary experience in the production control area to run a complete maintenance operation.³⁹ Lack of management experience, the third category of management failures, is self explanatory. An example of this group could be a pilot, with no experience other than flying, being assigned to a maintenance management position. The individual may be highly knowledgeable about aircraft, but his ability to manage the entire maintenance operation may be questionable.

Seventeen percent of all business failures fall into this category of mismanagement.⁴⁰

Up to now, the material discussed indicates that upper level managers must have a successful management background to prevent failure at industry's upper levels. Usually prior to a person being hired into a management position, he must have proven his abilities. At least the statistics show that if an individual is not a proven manager, his chances of success at the upper levels are extremely limited.⁴¹

Accomplished managers transferring to a business in which they have no experience is the last of the four categories of failures that Dunn and Bradstreet discuss. Ten percent of all business failures are accounted for in this group. This group is a hot topic of debate throughout the business world. Can an upper level manager successfully transfer from one industry to a totally unrelated business? This is a highly controversial and frequently discussed topic in the corporate environment.⁴²

The Army Application

The remaining portion of this section assumes that U.S. Army aviation maintenance operates under the same basic principles as those of any civilian industry. This means that the factors which affect the management principles or concepts of industry, should have the same application and produce the same effects in managerial positions in the U.S. Army aviation maintenance complex.

Statistics indicate that the vast majority of business failures are a result of managerial shortcomings.⁴³ These managerial failures range from simple incompetence to capable managers who do not have enough experience to deal with the technical aspects of their positions. Looking at the four broad categories of management failures, we can see that managerial incompetence and lack of management experience can be found at all levels and in all specialties without regard to school training, and so have no bearing on this thesis topic. The concepts of unbalanced experience and lack of experience in a particular area are applicable to the issue about whether the U.S. Army needs the aviation logistician officer specialty. Thirty percent of all

business failures fall into this category. Both of these areas' managerial problems stem from a lack of familiarity with part or all of the workload which they are managing.

The traditional view and most prevalent policy of industry is to hire managers with as much experience in the area which they will be working as possible. Most industries feel that managers switching to an unfamiliar industry have the odds of failing stacked against them. Applying these views to the U.S. Army supports the proposition that the U.S. Army needs an aviation maintenance expert, the aviation logistician, to manage its aviation maintenance programs and facilities.

The U.S. Air Force Study: Experience Vs. Performance

Overview of the Study

In the early to middle 1970's the U.S. Air Force was assigning personnel with no maintenance background to upper level maintenance management positions.⁴⁴ This policy caused many problems and shortcomings in their maintenance facilities.⁴⁵ The recognition of this problem through studies, like the one described in the following paragraphs, and astute observation, by the U.S. Air Force leadership,

resulted in the U.S. Air Force changing its policy.

Currently, the U.S. Air Force assigns only qualified maintenance managers to maintenance management positions.⁴⁶

In 1975, Major Charles M. Walker completed a study comparing the successful performance of U.S. Air Force maintenance managers in relation to their experience levels in the maintenance field. In this study, a correlation appears to exist between the maintenance managers' experience level and the performance of the unit. Assuming that aviation maintenance management is comparable wherever it is performed, this study is very useful in showing that U.S. Army aviation maintenance managers need to be as knowledgeable as possible in both the areas of maintenance and aviation. In the U.S. Air Force, all officers utilized in maintenance positions are either pilots or trained aviation maintenance officers. Since both of these categories of officers have extensive experience with aircraft and aviation, the area in which some pilots may be lacking expertise is experience in the maintenance field.

In the U.S. Air Force, each major command's inspector general conducts general, as well as operational

readiness inspections. The inspections are designed to accomplish an in-depth analysis of how well a unit performs its mission. They are management oriented and examine the organization's management productivity with respect to unit performance.⁴⁷ This study compared inspection results of Military Airlift Command maintenance facilities to the amount of maintenance experience of the maintenance manager. By examining the inspection results of the major stateside wings of Military Airlift Command, one finds that satisfactory results consistently occur in the units whose managers had maintenance backgrounds.⁴⁸ The opposite was generally true for wings which had maintenance managers with little or no maintenance experience.⁴⁹ Serious deficiencies are much more likely to be found in units managed by inexperienced executives. The 63rd Military Airlift Wing, Norton Air Force Base, California, completed a general inspection of its maintenance facility in 1972. The chief of maintenance at the time had been assigned there for approximately one year prior to the inspection. Prior to this assignment, his career had been operationally oriented. The inspection results were disastrous. Numerous

deficiencies were discovered which had serious impact on the entire maintenance operation. Some areas which had discrepancies noted on previous inspections showed no improvement. Many of the management reports and forecasts were so inaccurate they were unusable. Junior officers were not being used as managers and were not sure of their duties or their role in the organization. Shortly after the inspection results were announced, the maintenance chief was replaced. The new chief's background was similar to that of the person he replaced. Approximately eighteen months later the inspection was repeated with results worse than those previously experienced.⁵⁰

The inspection of the 436th Military Airlift Wing at Dover Air Force Base, Delaware, resulted in just the opposite findings. The inspection results prior to this inspection had been very poor and the chief of maintenance had been replaced. The current chief had taken over about ninety days prior to this inspection. The new chief had an extensive background in both operations and maintenance. The unit showed a marked improvement and was given a

satisfactory report. Subsequent inspections showed progressive improvement.⁵¹

In their 1973 and 1974 inspections, the 437th Military Airlift Wing at Charleston Air Force Base had outstanding results. The top maintenance manager there had an extensive amount of maintenance experience. The unit had comments included in their inspection report such as: "Most areas in maintenance were very well managed and consistently produced a high quality product. Improvement efforts and innovative management techniques were evident throughout the organization."⁵²

In the last two inspections prior to the study, the 438th Military Airlift Wing at McGuire Air Force Base, New Jersey, was given marginal results. The chief of the wing maintenance operation was different for each inspection. Prior to service in this position, neither individual had any maintenance experience at all. The maintenance activities were rated borderline and the results indicated serious deficiencies throughout the maintenance management spectrum.⁵³

A second set of inspection results was examined in this study. The U.S. Air Force maintenance standard and evaluation program examines the unit from a task rather than a management point of view. These inspections are another way in which the U.S. Air Force examines the performance of its units. The inspection is designed to evaluate the overall maintenance capability through individual task accomplishment. The results of these inspections normally assess the degree of maintenance discipline involved in performing a task by the book, with the correct tools, and completing it in the time allocated by appropriate manuals.⁵⁴ One of the major responsibilities of the maintenance manager is maintenance discipline. With this in mind, the study draws a correlation between the management oriented inspector general report results and the task oriented evaluation and standardization inspection results.

The evaluation and standardization inspections were conducted under the same maintenance managers as the inspector general inspections. However, they were completed at separate times. The study shows that the evaluation results parallel one another. If a unit performed well for

one inspection, it did well on the other. The converse was also true.⁵⁵

The study shows that each of these inspections can be utilized as a measuring device to support the hypothesis that the senior maintenance manager for an organization must have a maintenance background; however, these results cannot be determined as conclusive. There are a number of other factors which can affect inspection results, to include: weather, age of equipment, amount of equipment, the number of inspections received in a given time period, and the numbers and experience level of the maintenance personnel working for the manager. All of these factors and others must be considered when attempting to examine the causes for the results of a performance evaluation in the maintenance area. However, this study has shown that adverse factors appear to have a smaller effect and are somewhat minimized by having an experienced maintenance manager.⁵⁶

The Military Airlift Command was the primary command evaluated in this study because fifty percent of its top maintenance managers did not have maintenance experience and it provided for a readily accessible statistical base. It

was also discovered that during the time of this study, the tenure for chiefs of maintenance within the Strategic Air Command was seven and one-half months.⁵⁷ The largest single reason for the short tours in this position was failure to adequately perform in the position. The single greatest factor provided as a contributor to this failure was the lack of maintenance experience.⁵⁸

The results of this study indicate that qualifications should play a major role in the selection of maintenance managers in the U.S. Air Force. Up to the time of this study, the U.S. Air Force divorced itself from the accepted practices of the business world and continued to select its top maintenance managers without regard to prior experience or qualification in the maintenance field.⁵⁹ It was concluded that the U.S. Air Force must establish a system to identify and prepare officers to assume these leadership positions. It is interesting to note that the U.S. Air Force has established a system that ensures its maintenance managers are qualified prior to assuming maintenance manager positions.⁶⁰

Experience Vs. Performance in the Army

Aviation maintenance should be similar regardless of which service is doing it. Aircraft must be maintained in a safe, flyable condition in numbers as large as safety and physical limitations will permit. This is both the U.S. Air Force and the U.S. Army's aviation maintenance mission. With the mission and the service provided being similar, it should follow that management principles and findings which affect one organization would also affect the other in a similar manner.

Major Walker's study, and later the U.S. Air Force, concluded that maintenance managers must be maintenance qualified personnel. In the case of the U.S. Air Force, all of its personnel are aviation oriented, so it did not need to make a determination as to whether aviation experience was necessary. The same logic which applies in this study should however, also apply to making that decision. The apparent conclusion of the U.S. Air Force is that it will utilize the best trained aviation maintenance officers it can get to fill its maintenance management positions. Failure to do so, as has been shown in this study, can

produce disastrous results for the supported unit's maintenance posture.

The Army's Problem

Dissatisfaction Amongst Army Aviation Logisticians

The U.S. Army needs an officer of some type to fill aviation maintenance manager positions. Under the current system, the aviation logistician (15D) fills that need. There are two major problems with the current system. First, aviation logisticians for a variety of reasons, both perceived and real, are generally unhappy with their specialty. Second, and at least partially because of the first problem, the U.S. Army has a critical shortage of aviation logisticians. The area of aviation logistician dissatisfaction is interwoven with the shortage problem and each contributes to the other.

Aviation logisticians believe that they are discriminated against when compared to other officers in the U.S. Army.⁶¹ The common perception is that aviators see the aviation logistician as a logistician, while other combat service support officers see the aviation logistician as an aviator. Because of this perception, the logistician feels

that he is treated less than fairly and unjustly stereotyped by the U.S. Army community as a whole. This perception was evident in the responses of aviation logisticians to the survey conducted at the U.S. Army Command and General Staff College. Thirteen of fifteen logisticians surveyed or eighty-seven percent said that they felt they were not given the opportunity to perform the jobs needed to enhance their careers. This fact is at least a partial result of the shortage of aviation logisticians. Units cannot afford to place the aviation logistician in any position except an aviation maintenance position because of this shortage. A second area of disgruntlement amongst aviation logisticians, which goes along with the perceived discrimination, is the idea that aviation logisticians are not compared favorably with other officers in senior rater profiles. This attitude was also supported by both aviation logisticians and regular aviators in the survey. Of the logisticians surveyed, only four of fifteen or twenty-six percent stated that they felt they were accurately placed in senior rater profiles. Surprisingly, only sixty-three percent or nineteen of thirty-eight regular aviators surveyed stated that they felt

that logisticians were accurately placed in senior rater profiles. This large difference in opinion between the aviation logisticians and the regular aviators represents the difference in views of their two groups as to the treatment of the logisticians. Since regular aviators, in most cases, will be the future senior raters of aviation logisticians, it is certainly questionable as to whether these aviators will see a need to change the current situation. The aviation logisticians feelings of discrimination in senior rater profiles were supported by thirty-seven percent of the regular aviators surveyed. These regular aviators either stated that logisticians were not treated fairly in senior rater profiles or that they did not know if they were. With the majority of logisticians feeling that they are not being rated fairly in senior rater profiles and the support, in this belief, by many regular aviators, there is great doubt that this problem is only a perception.

A major area of dissatisfaction amongst those who serve in the aviation logistics specialty is the lack of career progression opportunities. While the promotion rates

to major and lieutenant colonel are comparable with the rest of the U.S. Army, the promotion rate to colonel for the aviation logistician is approximately sixteen percent below that of the rest of the U.S. Army. The charts at Appendix A show promotion rates for five years for each of these ranks. A probable cause of the low promotion rate to colonel is the lack of command opportunity for the aviation logistician at the battalion level. Command opportunities in this specialty are very scarce. Currently there are only one brigade level (Corpus Christi Army Depot) and five battalion level (three in Germany, one at Fort Campbell, and one at Fort Eustis) commands in the U.S. Army. Unfair treatment in senior rater profiles may also contribute to this problem by making aviation logisticians' records less competitive for schooling and thus command selection, even if the opportunities were available. The low promotion rate to colonel is more than a perceived problem.

The final area of dissatisfaction which will be discussed is the way personnel are recruited into the aviation logistician specialty and then kept there without opportunity to serve in other assignments. The author, like

many of his contemporaries, was involuntarily placed into the aviation logistician specialty by aviation branch. This was done without option, and repeated requests to drop the specialty were denied. The question, "How does the Army currently recruit aviation logisticians?" was asked of Major Gavoura, chief of the proponency branch of the Aviation Logistics School, Fort Eustis. The reply was, "Most are selected directly from flight school, some voluntarily and some against their will. Those with a propensity and a desire are picked first, but if there are slots to fill, the Needs of the Army clause goes into effect."⁶¹ Placing personnel into a specialty in which they would prefer not to serve, and in some cases are opposed to, will likely not be conducive to job satisfaction and career progression for the individual. The survey showed that twenty-seven percent of all aviation logisticians surveyed would have liked to transfer to another specialty and another fifty-three percent would have liked to have had the opportunity to serve in other positions. Only twenty percent of the logisticians surveyed said they were happy serving in exclusively aviation maintenance positions. When asked in

the survey if they would advise a junior aviation officer to pursue the maintenance career path, no aviation logisticians "strongly agreed" that they would and only twenty percent said they would "agree" with this choice. Regular aviators had two percent "strongly agree" and five percent "agree" with the recommendation. The survey results indicate that the aviation population as a whole does not believe that a career in aviation logistics is a very good option for a young aviator.

The Aviation Logistician Shortage

Of all aviation logisticians surveyed, fifty-three percent were exclusively assigned to aviation logistician positions throughout their company grade years. Only forty-three percent of those surveyed had the opportunity to serve in anything but aviation logistics assignments once qualified as an aviation logistician. In the mid to late 1980's, a message was sent from Army Personnel Command to all major units in the U.S. Army informing them of a worldwide shortage of aviation logisticians and that all aviation logisticians assigned to a command must be assigned to valid aviation logistics slots or the officer would be

pulled from the command for reassignment. The Aviation Assignment Branch News is a booklet published by aviation branch to keep the aviation community informed as to the latest personnel and assignment developments. The following paragraphs were in an article published in the November 1993 booklet:

WHERE ARE ALL THE 15Ds

Good question. Many commanders out there would probably respond: "I know where they ain't!" Guess I'll state the obvious- we have a worldwide shortage of 15Ds which includes the following career management fields: 15J (UH-1 maint); 15O (AH-64 maint); 15Q (CH-47 maint); 15R (AH-58D maint); and 15Y (UH-60 maint). Currently we are 33% of the ODP for captains and 25% of the ODP for all company grade maintenance officers. Why? Budget cuts, limited school quota and training seats at Ft. Eustis and Voluntary Incentive Programs immediately come to mind.

Unfortunately, there is not a near term solution for this shortage. The proponent offices at Ft Rucker and Ft Eustis are aware of the problem and are considering ways to solve it."

It becomes evident from reading the above facts that the U.S. Army's current system of supplying aviation logisticians to support its aviation maintenance supervisory needs is not working. Even the majority of successful personnel, in the specialty, are not satisfied being aviation logisticians. There is, and for years has been, a critical shortage of personnel in the specialty.

Aviation branch states that budget cuts, limited school quotas, and Voluntary Incentive Programs are major causes of the shortage.⁶³

This author would propose that the shortage is caused by the dissatisfaction in the aviation logistician ranks. Aviation specialties other than maintenance are not experiencing similar deficiencies, yet they were subject to the same budget cuts, limited school quotas, and Voluntary Incentive Programs as the aviation logistician community. The fact remains that the aviation community as a whole has no confidence in the career opportunities offered to the aviation logistician and until the areas of dissatisfaction are addressed the system will probably remain broken.

The Army Solution to the Aviation Logistician Problem

As stated above, the U.S. Army perceives that the major problem in the career field of the aviation logistician is the lack of promotion potential. Due to real and perceived problems in this area, aviation branch assisted in the development of a new functional area for logisticians. This new functional area, FA 90, is an Area of Concentration (AOC) for logisticians and will be open

only to officers in the Ordinance, Transportation, Quartermaster, Medical Service Corps, and Aviation Branches. This functional area was established because the U.S. Army saw a need to develop a group of officers competent in the planning and directing of multifunctional logistics.

The new functional area was approved for immediate implementation by the Deputy Chief of Staff for Personnel on 2 November 1992. Implementation began with the coding/recoding of eligible positions throughout the U.S. Army. Concurrent with this process, Personnel Command conducted a board for the accession of officers into the new functional area. These actions are both at or nearing completion. Most of the positions currently coded 03A (Logistics Immaterial) and 7Z (Master Logistician) will be recoded into the new FA 90. Since the results of the scrub are not yet available, exact figures as to numbers of positions have not been determined. The best estimation available is that about 1500 positions army wide will be recoded. The complete coding process takes about one year so implementation of the program is not far off.

Aviation branch, in a separate but parallel initiative, will merge the aviation (15B) and aviation logistician (15D) Areas of Concentration. This action will serve two purposes: first, the aviator and the aviation logistician will compete equally for both operational and logistical/maintenance command and staff positions. Second, and more importantly, aviation branch will train, develop, and grow professional aviators who better understand logistics and how it is integrated into operations. All officers will receive additional logistics training at both the basic and advanced courses. Additionally, more logistics will be taught to prospective aviation unit commanders to provide them with a logistics overview prior to command. Ideally, future aviation battalion commanders will have had a logistics assignment at some point in their career.

The career path for an officer selected to track as an aviation logistician will proceed as follows. The officer will attend the aviation officer basic course which include flight school. After an advanced aircraft transition, if the officer's new assignment requires it,

the officer will attend the maintenance manager/maintenance test pilot course, again if his next assignment requires this expertise. After an initial assignment to gain flight and troop leading experience, the officer will attend an officer advanced course. Some will attend the Aviation Officer Advanced Course at Fort Rucker and some will attend the Combined Logistics Officer Advanced Course at Fort Lee. After advanced course attendance, the officer will serve in another aviation assignment, during which he will attend the Combined Arms Services Staff School (CAS³). There is some discussion about the appropriate point in an officers' career when the FA 90 specialty should be assigned. When assigned, at some point between the fifth and eighth year, the officer will be eligible to seek assignments in the multifunctional logistics area. With the coding of some aviation positions as FA 90, it will be possible for the logistician to remain in aviation assignments to meet gates and qualify in the functional area at the same time. At approximately the twelfth year, the officer should attend Command and General Staff College. This will be followed by two assignments, either in the FA 90 area or as an aviator.

The preference would be to alternate. Possible battalion command and service in joint and upper level staff positions will follow.

Aviation logistics/maintenance positions make up ten to twenty percent of the aviation positions in the U.S. Army. Aviation Branch forecasts ten percent of its officers will participate in the FA 90 functional area. This means that ten percent of the U.S. Army's current aviation logistician billets will be filled by regular aviators or by FA 90 personnel from other branches. Since most of these positions require a rated individual, the majority of the positions will be filled by non-logistician aviators. Hopefully, this will help to dispel the current logistician versus aviator attitudes which are perceived to exist today.

The author is not convinced that the U.S. Army's proposed solution will solve the aviation logistician problem. The aviation logistician who gets the right jobs, which theoretically will be available to him, should be much more competitive for selection for battalion command and thus for promotion to the O-6 level. However, there is no guarantee that the logistician will ever be able to get

those jobs. It is true that there will be more of the important career enhancing jobs open to the aviation logistician on paper. The fact will still remain, however, that there is a worldwide shortage of trained aviation logisticians, and since that is the case, these personnel will be forced to remain in aviation maintenance positions to meet the needs of the U.S. Army. Unless there is a worldwide change in the attitude of the aviation community toward the aviation logistician specialty, personnel will continue to shy away from the specialty.⁶⁴ As long as this occurs, the U.S. Army will have to keep forcing personnel into the specialty, as they have done in the past, and the shortage will continue because the real problem is still present.

The true problem, after analyzing the situation, based on the authors experiences and interviews with other successful aviation logisticians, is a combination of lack of promotion potential, injustices by senior raters because of parochialism, and the simple fact that an aviator has to work a great deal harder, with a greater number of responsibilities, and a greater possibility of failure

Add to this a greater chance of not being "taken care of" on his efficiency reports and the true reason for the shortage of aviation logisticians becomes apparent. The above view may be only a perception, but the survey completed by the aviation personnel attending the Command and General Staff College class of 1992-1993 indicates that it is an Army wide perception.

CHAPTER FIVE

CONCLUSION

Summary

This work has described the aviation logistician specialty as it exists in the U.S. Army today. With this background, the specialty could then be compared to the systems utilized by the U.S. Air Force and the U.S. Navy. It has been shown that the services all have the same basic goals and missions for their aviation maintenance facilities. Additionally, the facilities are similar in their nature with the same basic areas of concentration. The obvious conclusion may then be drawn that the managerial functions of the different services' aviation maintenance programs must be comparable. The U.S. Air Force study, conducted by Major Walker, indicates a direct relationship between maintenance experience and success of the unit maintenance effort. In the U.S. Air Force case, all Air Force officers are aviation oriented and have an aviation background and thus the discriminator there was

maintenance experience. The U.S. Air Force has concluded that it must have well trained, experienced, aviation maintenance managers to serve in its maintenance positions. The U.S. Navy, although utilizing a different approach toward recruiting, training and managing its aviation maintenance officers, also recognizes the need for the most experienced best trained aviation maintenance officers possible to fill its aviation maintenance officer positions.

It can also be seen that the managerial processes which apply to civilian industry must also apply to the military services and thus to the U.S. Army. Civilian industry recognizes the need for experience in the area in which the manager will be supervising. Industry is so adamant about this issue that it will not normally hire an individual without the prerequisite experience. Additionally, statistics show that the chances of a manager successfully transferring from his area of expertise into an unfamiliar area are very poor. The majority of successful executives agree that a thorough knowledge of the area to be supervised is a key ingredient in the success of the manager.

The U.S. Army has always recognized the need for training and experience in its aviation logistician positions. However, for a number of reasons, like the U.S. Air Force, it has not always filled its aviation maintenance positions with well trained or experienced personnel. Additionally, the U.S. Army system of recruiting and managing aviation logisticians is not working well. The U.S. Army is having trouble keeping aviation logisticians in its ranks, and those who remain indicate a widespread dissatisfaction with the way their careers are managed.³

The U.S. Army has instituted a new plan for the career management of its aviation logisticians. The system calls for the combining of the aviation and aviation logistician specialties at the lower levels and the formation of a new functional area into which aviation logisticians will be placed. Under this new system, the U.S. Army feels that there will be more opportunities for the aviation logistician to work in the needed positions to make him more competitive with his peers in other branches for promotion through the O-6 level. This system may solve the Army's problem. To do so will require an attitude

change of the entire aviation community toward the aviation logistician specialty. Only time and experience will tell.

Conclusions

This thesis examines the value of keeping an expert in the field of aviation maintenance, the aviation logistician, in the U.S. Army's list of officer specialties. It addresses the dissatisfaction found with the current system from several angles and offers solutions that could resolve these problems. The evidence indicates that there is a need for expertise in the aviation maintenance field to adequately perform in aviation logistician coded positions. The thesis analyzes whether it is in the U.S. Army's best interest to maintain the aviation logistician specialty.

The debate over who can fill these positions will probably continue as the U.S. Army goes forth in its drawdown and branches are looking for additional justification for maintaining their personnel strength.' The value of this study lies in its advice to the U.S. Army aviation community: Should the U.S. Army maintain the aviation logistician specialty? The answer to that question is a conclusive yes. It is the authors strongest

recommendation that an aviation maintenance officer specialty in some form be maintained to provide the U.S. Army with the needed level of expertise in these highly technical and demanding positions. It will be seen in the near future whether proposed U.S. Army changes will alleviate the problems created by having such a specialized officer in its ranks.

Recommendations

It is doubtful that the system chosen for implementation by the U.S. Army will solve the problems with the aviation logistician specialty. The system does, however, have merit. It is strongly recommended that the U.S. Army aviation community give the new system its support and an honest effort be made to make the system work.

In the event that the new system fails, the implementation of a system similar to the U.S. Navy's limited duty officer system is strongly recommended. This system would provide aviation logisticians who are experts in the field of aviation maintenance. These personnel would not be worried about upward mobility past the rank of O-5 due to their years in service. Perhaps most importantly

personnel who want to be aviation logisticians and are satisfied in that position would be recruited to fill these demanding jobs.

Due to the limited time available for this research projects completion, every aspect of this question could not be researched completely. There are several areas which would provide benefit from further study. Recommendations for topics further research are as follows: First, a comparison of the performance of school trained aviation logisticians verses regular aviators in the performance of aviation maintenance officer duties.⁵ Second, whether it would be beneficial to train ground maintenance/ordnance officers in aviation subjects to fill aviation maintenance positions. Last, whether it would be more beneficial to simply hire civilian aviation maintenance experts to fill the required aviation maintenance positions.

ENDNOTES

Chapter 1

¹Charles R. Walker, "Chiefs of Maintenance: A Study of Productivity Versus Experience," (Research Study presented to the Air University, Maxwell Air Force Base, May 1975), 2. Hereafter cited as Walker, "Chiefs of Maintenance."

²U. S. Congress, Senate, Small Business Failures, Management Defects Held Largely Responsible (Hearings before the select committee on small business. Eighty Seventh Congress Second Session, 25, 26, and 27, June 1962, 10.

³This observation is made through personnel experience and has been confirmed in personnel interviews with LTC. Gay, DSRO, CGSC, Ft. Leavenworth, KS.

⁴This observation is from personal experience gained in my fifteen years of service as an aviation logistician/ maintenance officer and was confirmed in the survey conducted of aviators attending the CGSC class of 1992-1993.

⁵Ibid.

⁶This observation was made in a telephone interview with Major Gavoura, the Chief of Proponency for the Aviation Logistics School, Ft Eustis, VA. Hereafter cited as Ft Eustis.

⁷Walker, "Chiefs of Maintenance," 12.

⁸Ibid.

Chapter 2

¹Unless stated otherwise, the use of masculine nouns and pronouns in this work do not refer exclusively to men.

²Interview, Gavoura, Ft. Eustis.

Chapter 3

¹The survey population was restricted to the Command and General Staff College class of 1992-1993 because of time limitations and their accessibility to the author.

Chapter 4

¹U.S. Army, AR 611-101, Commissioned Officer Classification System (Washington: Department of the Army, 31 October 1990), 18.

²Ibid.

³This observation has been made by the author over years of personal experience in the aviation maintenance field.

⁴U.S. Army, FM 1-500, Army Aviation Maintenance Management (Washington: Department of the Army, 14 July 1989), 1-1.

⁵FM 1-500, 24 July 1989, 1-1.

⁶Ibid., 1-11.

⁷Ibid., 1-8.

⁸Ibid., 1-1.

⁹This observation is based on the author's fifteen years of experience as a maintenance company commander and his career as an aviation maintenance technician.

¹⁰This observation was made during a personal interview with Captain Mitchell Miller, Air Force Maintenance officer, attending the Army Command and General Staff College class 1992-1993.

¹¹U.S. Air Force, Air Force Manual 66-1, Maintenance Management, Aircraft Maintenance Vol. II (Washington: Department of the Air Force, 1 May 1974), 1-1.

¹²U.S. Air Force, Air Force Manual 36-1, Officer Classification Manual (Washington: Department of the Air Force, May 1969), 12-23.

¹³Ibid.

¹⁴Ibid.

¹⁵Ibid.

¹⁶Air Force Manual 36-1, 12-21.

¹⁷Walker, "Chiefs of Maintenance," 12.

¹⁸Ibid.

¹⁹Ibid., 13.

²⁰Ibid., 14.

²¹U.S. Navy, Nav Pers 15839H, Manual of Navy Manpower and Personnel Classifications Vol I, (Washington: Department of the Navy), 1991, I-C-87.

²²This observation was made during a personal interview with Commander Chris Handley and Lieutenant Commander Herb Yee, both Naval aviators assigned to the Army Command and General Staff College Ft Leavenworth, Kansas.

²³Ibid.

²⁴U.S. Congress, Small Business Failures, 10.

²⁵Ibid.

²⁶Ibid., 8-9.

²⁷John A. Walters, "Can a top Manager Slot into any Industry," International Management (June 1973): 21.

²⁸Ibid.

²⁹Ibid.

³⁰Walters, 25.

³¹Jerry H. Jones, "Executive Ability the Management Merry-Go-Round," Harvard Business Review, 52 (July 1974): 121.

³²Ibid.

³³Walters, 23.

³⁴Ibid., 22-23.

³⁵Ibid., 21.

³⁶Ibid., 23.

³⁷Ibid., 25.

³⁸U.S. Congress, Small Business Failures, 11.

³⁹Ibid., 10.

⁴⁰Ibid.

⁴¹Ibid., 11.

⁴²Walters, 21.

⁴³U.S. Congress, Small Business Failures, 11.

⁴⁴Walker, "Chiefs of Maintenance," ii.

⁴⁵Ibid., 24-32.

⁴⁶This observation was made in a personal interview with Captain Mitchell Miller, Air Force maintenance officer, attending the Army CGSOC class of 1992-1993. (Hereafter cited as AF Int)

⁴⁷Walker, "Chiefs of Maintenance," 23.

⁴⁸Ibid.

⁴⁹Ibid., 24.

⁵⁰Ibid.

⁵¹Ibid., 25.

⁵²Ibid.

⁵³Ibid., 26.

⁵⁴Ibid.

⁵⁵Ibid., 27.

⁵⁶Ibid.

⁵⁷Ibid., 31.

⁵⁸Ibid.

⁵⁹Ibid., ii.

⁶⁰Interview, Miller, AF INT.

⁶¹Interview, Gavoura, Ft. Eustis.

⁶²Dick Crampton, "WHERE ARE ALL THE 15D'S," Aviation Assignment Branch News (February 1993): 2-3.

⁶³Ibid.

Chapter 5

¹U. S. Congress, Small Business Failures, 11.

²Walters, 25.

³This observation was made during interviews with aviation logisticians attending the 1992-1993 class of the Army Command and General Staff College.

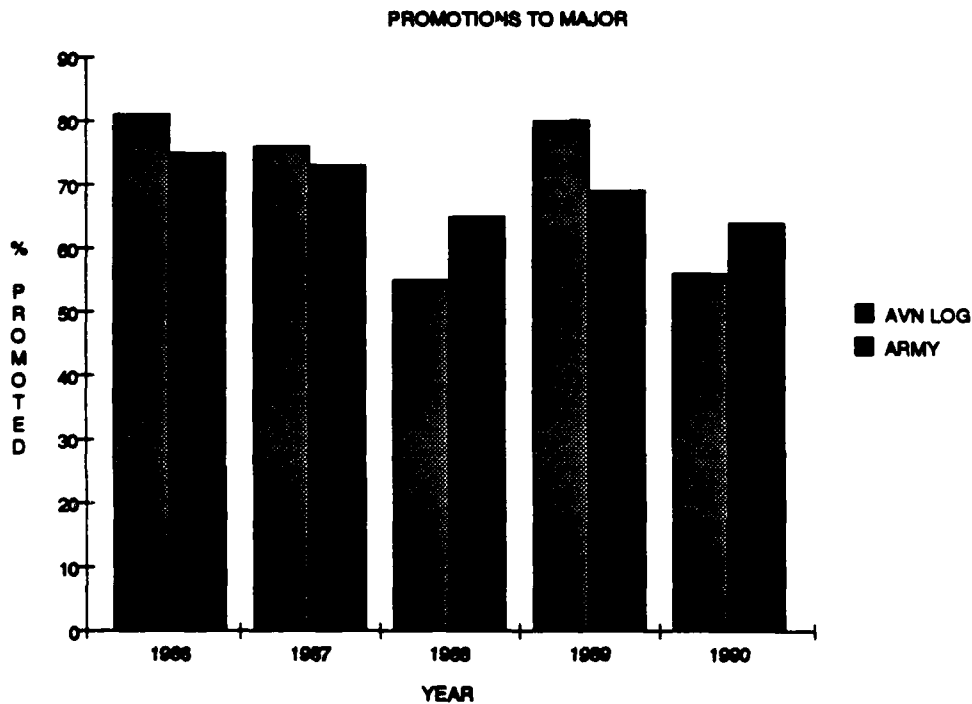
⁴Interview, Gavoura, Ft Eustis.

⁵The survey conducted of aviators at the Command and General Staff College was intended to provide statistics as to opinions of the aviation community towards aviation logisticians and their careers. It was not intended to compare the performance of school trained vs. non-school trained aviation maintenance officers.

APPENDIX A

CHART 1

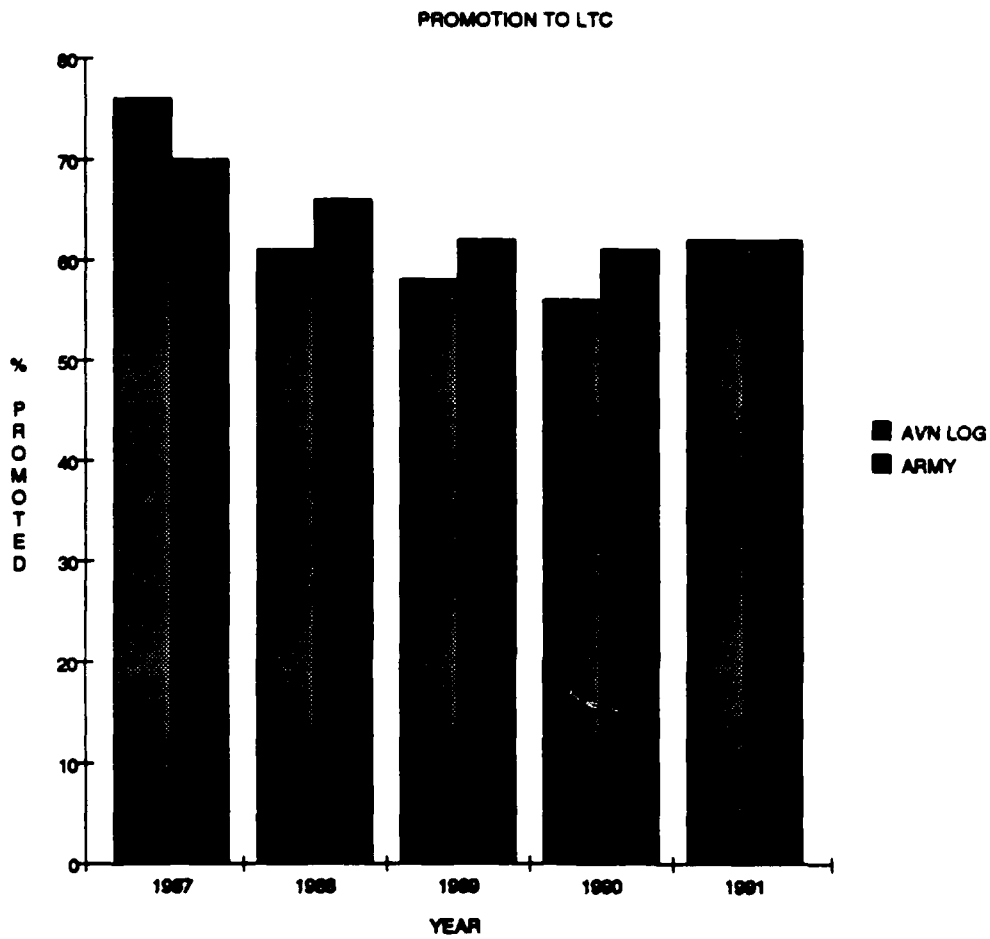
Major's Promotions



Source: This information obtained from telephone interview with Major Gavoura, proponency Branch, Aviation Logistics School, Fort Eustis.

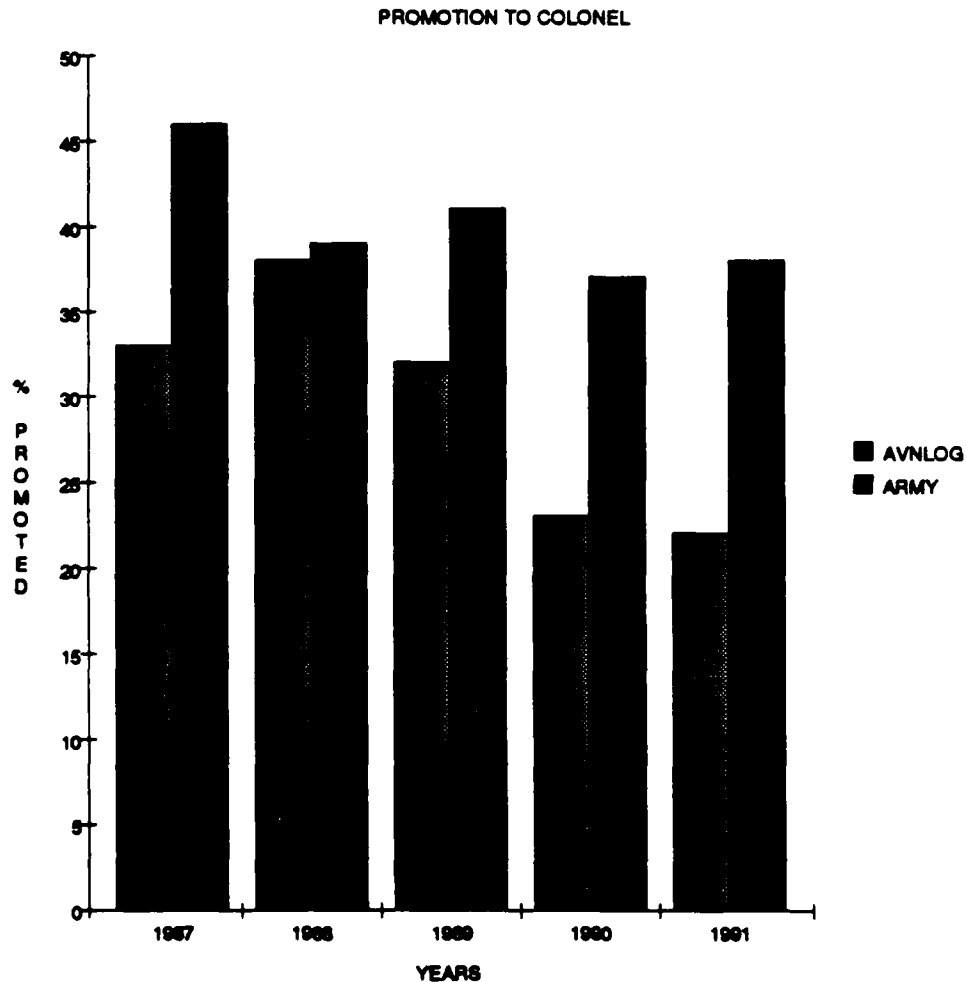
CHART 2

Lieutenant Colonel's Promotions



Source: This information was obtained from a telephone interview with Major Gavoura, Proponency Branch, Aviation Logistics School, Fort Eustis, VA.

CHART 3
Colonel's Promotions



Source: This information was provided in a telephonic interview with Major Gavoura, Proponency Branch, Aviation Logistics School, Fort Eustis, VA.

APPENDIX B

SURVEY

CGSC 93-9138-010

SUBJECT: AVIATION LOGISTICIAN SURVEY

1. Purpose: This survey is in partial fulfillment of a MMAS in General Studies from the Command and General Staff College, Fort Leavenworth, KS.

2. Participation: Your participation in this survey is totally voluntary, and greatly appreciated.

3. This survey will be used to analyze the Army aviation communities attitude concerning aviation logisticians, aviation logistician training, and the aviation logistician career path. All information provided will be kept strictly confidential, data obtained from analysis of the survey will be utilized only for this graduate level project.

4. Please place your completed survey in a shotgun envelope (available in your classroom distribution room or from classroom services), address it to Maj. Prater, Section 10A, and place it in the distribution box in your class distribution room; OR return the survey to Section 10A yourself, giving it to me or placing it in my distribution box in the distribution room.

5. Point of contact is MAJ. Jim Prater, Sec. 10A.

THANK YOU FOR YOUR ASSISTANCE!

INSTRUCTIONS

When completing this survey please use only a number two pencil. Mark the answer sheet (CGSC Form 96) provided by filling in the appropriate circle completely. On the top half of the answer sheet you will find space for administrative data, please place your student exam I. D. code in section C (spaces for student number). No further administrative information is required.

Any additional comments you may wish to express concerning any of these questions may be hand written on the back of the provided answer sheet or made to me MAJ Jim Prater in section 10A. Your help in this project is appreciated.

1. How many years of aviation service do you have?
 - a. Less than 4.
 - b. At least 4 but less than 6.
 - c. At least 6 but less than 8.
 - d. At least 8 but less than 10.
 - e. 10 or over.

2. Do you believe that aviation logisticians are given equal opportunity to serve in required positions for professional development?
 - a. yes
 - b. no
 - c. Don't know.

3. Do you believe that aviation logisticians are accurately placed in senior rater profiles when compared to other aviators in leadership, or staff positions?
 - a. yes
 - b. no
 - c. Don't know.

4. If advising a junior officer preparing for flight school, I would encourage him to enter the aviation maintenance career path.
 - a. Strongly agree.
 - b. Agree.
 - c. Neither agree or disagree.
 - d. Disagree.
 - e. Strongly disagree.

5. Do you believe that a non-rated maintenance officer (such as an ordinance officer) could adequately fill aviation maintenance officer positions?
- a. Yes, with no additional schooling.
 - b. Yes, with minimal additional training.
 - c. Yes, with extensive additional schooling.
 - d. No, must have a rated aviation maintenance officer.
 - e. Don't know.

6. Do you believe the aviation logistician has a viable career path to the 0-6 level?
- a. Yes
 - b. No
 - c. Don't know.

7. Does the Army need the Aviation logistician (15D) or equivalent officer specialty?
- a. Yes
 - b. No
 - c. Don't know.

8. Are you a school trained aviation logistician?
- a. Yes
 - b. No

IF YOU ANSWERED YES TO QUESTION 8 PLEASE SKIP QUESTIONS 9 THROUGH 16.

9. Do you believe you could perform aviation maintenance officer duties at the Aviation unit level maintenance (AVUM) level?
- a. Yes, without additional training.
 - b. Yes, with minimal additional training.
 - c. Yes, with formal schooling.
 - d. No.

10. Do you believe you could perform aviation maintenance officer duties at the Aviation intermediate maintenance (AVIM) level?
- a. Yes, without additional training.
 - b. Yes, with minimal additional training.
 - c. Yes, with formal schooling.
 - d. No.

11. How many times have you served in an aviation maintenance position?

- a. Never
- b. Once.
- c. Twice.
- d. Three times.
- e. More than three times.

IF YOU ANSWERED NEVER TO QUESTION 11 THEN PLEASE SKIP QUESTIONS 12, 13, AND 14.

12. At what level of Maintenance did you serve?

- a. AVUM
- b. AVIM
- c. Both AVUM and AVIM

13. After serving as an aviation logistician were you given the aviation logistician specialty identifier?

- a. Yes
- b. No
- c. Don't know.

14. If you answered yes to question 13, was this at your request?

- a. Yes
- b. No

15. Would you have volunteered to become an aviation logistician?

- a. I did volunteer to become an aviation logistician.
- b. Yes I would given the opportunity.
- c. No

16. If early in your career Branch had notified you of your selection to become an aviation logistician, which of the following best describes how you would have reacted?

- a. I would gladly have served as an aviation logistician.
- b. I would have served but tried to get out of the maintenance as soon as possible.
- c. I would have fought this action and served only as a last resort.

- d. I would have left the service rather than served as an aviation logistician.
- e. I do not know how I would have reacted.

IF YOU ARE A SCHOOL TRAINED AVIATION LOGISTICIAN PLEASE COMPLETE QUESTIONS 17 THROUGH 20.

17. I became an aviation logistician because _____ .
- a. I went to flight school to become an aviation logistician.
 - b. I volunteered during flight school to become an aviation logistician.
 - c. I was given the opportunity after flight school and volunteered.
 - d. I was selected by branch for assignment in this specialty .
 - e. Other reasons. (please explain on back.)
18. Did you serve in an aviation maintenance officer position prior to attending the Aviation Maintenance Officer course?
- a. Yes
 - b. No
19. As a company grade officer after becoming an aviation logistician I served _____ .
- a. Exclusively in aviation logistician positions.
 - b. In aviation logistician positions and in other aviation positions.
 - c. Only in aviation positions other than maintenance positions.
 - d. In both non-aviation slots and aviation slots.
20. Given a choice I would have _____ .
- a. Dropped the logistician MOS completely.
 - b. Divided my tours between line pilot jobs and aviation maintenance positions.
 - c. Remained in aviation logistician jobs exclusively.

THANK YOU FOR YOUR ASSISTANCE PLEASE RETURN YOUR COMPLETED SURVEY AS SOON AS POSSIBLE TO

APPENDIX C

SURVEY RESULTS

The survey at Appendix B was conducted of the aviators attending the 1992-1993 Command and General Staff College class. Fifty-three officers completed the survey, these officers were broken down into two groups for analysis of their responses. The first group consisted of aviators with no aviation logistics specific training, and the second group consisted of aviation logisticians who had been awarded the 15D specialty. All figures are presented as percentages. The results of the survey are provided in the following table:

QUESTION #	AVIATORS	LOGISTICIANS
1a	0	0
1b	0	6
1c	8	0
1d	16	13
1e	76	87
2a	39	13
2b	42	87
2c	0	18
3a	63	26
3b	18	60
3c	19	14
4a	2	0
4b	5	20
4c	33	20
4d	42	33

4e	18	26
5a	0	0
5b	24	33
5c	18	20
5d	47	47
5e	11	0
6a	39	26
6b	26	74
6c	35	0
7a	79	60
7b	13	20
7c	8	20
8a	0	100
8b	100	0
9a	16	n/a
9b	61	n/a
9c	18	n/a
9d	5	n/a
10a	11	n/a
10b	34	n/a
10c	45	n/a
10d	10	n/a
11a	82	n/a
11b	10	n/a
11c	8	n/a
11d	0	n/a
12a	86	n/a
12b	0	n/a
12c	14	n/a
13a	0	n/a
13b	100	n/a
13c	0	n/a
14a,b	n/a	n/a
15a	7	n/a
15b	16	n/a
15c	76	n/a
16a	16	n/a
16b	42	n/a
16c	47	n/a
16d	13	n/a
16e	5	n/a
17a	n/a	40
17b	n/a	0

17c	n/a	7
17d	n/a	40
17e	n/a	13
18a	n/a	0
18b	n/a	100
19a	n/a	53
19b	n/a	47
19c	n/a	0
19d	n/a	0
20a	n/a	27
20b	n/a	53
20c	n/a	20

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